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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/009,262

12/10/2001

Peder Nafstadius

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02/04/2005

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EXAMINER

KAO, CHIH CHENG G

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,262

Applicant(s)

NAFSTADIUS, PEDER

Examiner

Chih-Cheng Glen Kao

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-23 and 26-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23, 26-28 and 31-39 is/are allowed.
- 6) ☒ Claim(s) 29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Sweden on 6/9/99. It is noted, however, that applicant has not filed a certified copy of the 9902163-6 application as required by 35 U.S.C. 119(b).

Claim Objections

2. Claim 21 is objected to because of the following informalities, which appear to be minor draft errors creating grammatical and lack of antecedent basis problems.

In the following format (location of objection; suggestion for correction), the following suggestions may overcome their respective objections: (claim 21, line 19, "relative said outer"; inserting - -to- - after "relative") and (claim 21, line 22, "with said rotation"; replacing "said" with - -the- -).

For purposes of examination, the claims have been treated as such. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perusek et al. (US Patent 4651007) in view of Townsend et al. ("The SMART scanner: a combined PET/CT tomography for clinical oncology).

4. Regarding claim 29, Perusek et al. discloses a device comprising a gantry (Fig. 2), said gantry comprising an inner (Fig. 2, #240) and outer (Fig. 2, #10) gantry part, a radiation device (Fig. 2, #18), mechanically supported by the inner gantry part and rotatable around a rotation axis (Fig. 6, large arrow next to #112'), wherein all movable parts of the gantry are, in all situations, situated at a distance from the rotation axis larger than a predetermined value (Fig. 2), said inner gantry part being rotatably supported by said outer gantry part at two support locations, situated on opposite sides of the treatment volume in a direction parallel to the axis (Fig. 2, #136), said inner gantry part further comprising a linear beam portion (Fig. 2, #240), on which said radiation device is movably support for motions along said linear beam portion (Fig. 3, right and left arrow), said linear beam portion mechanically connecting said two support locations (Fig. 2, #240 and 136), and said linear beam portion being substantially parallel to said rotation axis (Fig. 2, rotation axis around #16).

However, Perusek et al. does not disclose a radiation head to direct radiation to a treatment volume situated substantially on a rotation axis.

Townsend et al. teaches a radiation head to direct radiation to a treatment volume situated substantially on a rotation axis (Fig. 2, "CT").

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to incorporate the device of Perusek et al. with the radiation head of

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Townsend et al., since one would be motivated to make such a modification to more accurately acquire aligned functional and anatomical images for any part of the human body (Abstract) as shown by Townsend et al.

Allowable Subject Matter

5. Claims 21-23, 26-28, and 31-39 contain allowable subject matter.

Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and all intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 21, prior art does not disclose or fairly suggest an irradiation device including wherein all movable parts of a gantry are, in all situations, situated at a distance from a rotation axis larger than a predetermined value, an inner gantry part being rotatably supported by an outer gantry part at two support locations, situated on opposite sides of a treatment volume in a direction parallel to said axis, said outer gantry part being stationary with respect to said treatment volume, said radiation head being movable relative to said outer gantry along at least one arc of a circle substantially centered at said treatment volume, said arc being non-parallel with the rotation of a radiation head around said rotation axis, whereby non-coplanar irradiation treatment is achievable, in combination with all the limitations in the claim. Claims 22, 23, 26-28, and 31-39 contain allowable subject matter by virtue of their dependency.

Regarding claim 30, prior art does not disclose or fairly suggest an irradiation device including wherein a radiation head is tiltably supported by a linear beam portion, said radiation head directing its radiation towards a treatment volume from any position relative to said linear beam portion, in combination with all the limitations in the claim and base claim.

Response to Arguments

7. Applicant's arguments with respect to claim 29 have been considered but are moot in view of the new ground(s) of rejection.

Townsend et al. still applies for its teachings of a radiation head.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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DAVID V. BRUCE
PRIMARY EXAMINER